

## Risk Indicators Associated with Permanent Congenital, Delayed-Onset, or Progressive Hearing Loss in Childhood

1. Caregiver concern	regarding hearing, speech, language or developmental delay
2. Family history	of permanent childhood hearing loss
Neonatal intensive care of more than 5 days	or any of the following regardless of length of stay: ECMO, assisted ventilation, exposure to ototoxic medications (gentamycin/tobramycin) or loop diuretics (furosemide/Lasix) and hyperbilirubinemia requiring exchange transfusion
4. In utero infections	CMV, herpes, rubella, syphilis, and toxoplasmosis
5. Craniofacial anomalies	including those that involve the pinna, ear canal, ear tags, ear pits, and temporal bone anomalies
6. Physical finding	such as a white forelock, that are associated with a syndrome known to include a sensorineural or permanent conductive hearing loss
7. <b>Syndromes</b> associated with hearing loss or progressive or late-onset hearing loss	such as neurofibromatosis, osteopetrosis, Usher syndrome, Waardenburg, Alport, Treacher Collins, Pendred, Jervell and Lange-Nielson
8. Neurodegenerative disorders	such as Hunter syndrome , or sensory motor neuropathies such as Friedreich ataxia and Charcot-Marie-Tooth syndrome
Culture-positive postnatal infections associated with sensorineural hearing loss	including confirmed bacterial and viral (especially herpes viruses and varicella) meningitis
10. Head trauma	Especially basal skull/temporal bone fractures that require hospitalization
11. Chemotherapy	
12. Ear Infections	Recurrent or persistent fluid for at least 3 months

Idaho Sound Beginnings recommends an initial risk factor evaluation be done at 9 months of age based on the following factors:

- 1. The ease of testing a child at this age,
- 2. The ability to gather a greater amount of data quickly with minimal repeat visits, and
- 3. The ability to identify and address hearing loss during the critical "language learning period" in order to maximize communication and minimize speech and language delays.

The timing and number of hearing re-evaluations for children with risk factors should be individualized depending on the relative likelihood of a delayed onset hearing loss. All infants with any risk factor should have at least 1 diagnostic audiology assessment by [no later than] 24 months of age \*\* (JCIH).

Risk factors **bolded** are considered to be of greater concern for delayed onset hearing loss, therefore **monitoring of these children should be more frequent** than once following the neonatal period.

Consistent with the AAP periodicity schedule, infants should be monitored for auditory skills, middle-ear status, and developmental milestones (surveillance) at each visit within the medical home. Use of a validated global screening tool is recommended.

<sup>\*\* 2007</sup> Joint Committee on Infant Hearing (JCIH) Position Statement Update, www.jcih.org